What is claimed is:

1. A method of detecting superficial zone protein in a sample, comprising:

(a) contacting the sample with a monoclonal antibody or fragment thereof having specific binding affinity for superficial zone protein, wherein the binding affinity of the antibody or fragment thereof for human superficial zone protein is the same or greater than the binding affinity for bovine superficial zone protein in a competitive binding assay, resonant mirror biosensor analysis or surface plasmon resonance analysis, under conditions in which an antigen/antibody complex can form; and

(b) detecting the presence of the antigen/antibody complex, wherein the presence of the antigen/antibody complex indicates the presence of superficial zone protein in the sample.

2. The method of claim 1, wherein the sample is selected from the group consisting of synovial fluid, tears, saliva, urine, serum, plasma, and bone marrow, synovium, tendon, tendon sheath, ligament, meniscus, intervertebral disk, pericardium, chondrocytes, and articular cartilage.

3. The method of claim 1, wherein the detecting step comprises an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, a resonant mirror biosensor analysis, and a surface plasmon resonance analysis.

4. A method of diagnosing a degenerative joint condition in a subject, comprising:

(a) obtaining a test sample from the subject;

(b) detecting superficial zone protein in the test sample; and

(c) comparing the amount of superficial zone protein in the sample with an amount present in a control sample;

a modulated amount of superficial zone protein in the test sample indicating the degenerative joint condition.

5. The method of claim 4, wherein the degenerative joint condition is an arthritic condition.

6. The method of claim 5, wherein the arthritic condition is osteoarthritis.

7. The method of claim 5, wherein the arthritic condition is rheumatoid arthritis.

8. The method of claim 4, wherein the test sample and control sample are selected from the group consisting synovial fluid, tears, saliva, urine, serum, plasma, and bone marrow, synovium, tendon, tendon sheath, ligament, meniscus, intervertebral disk, pericardium, chondrocytes, and articular cartilage.

9. The method of claim 8, wherein the test sample is synovial fluid or synovium and wherein the degenerative joint condition is indicated by an elevated amount of superficial zone protein in the test sample.

10. The method of claim 4, wherein the superficial zone protein is detected by contacting the test sample with the antibody or fragment thereof of claim 1, under conditions in which an antigen/antibody complex can form, and

detecting the level of antigen/antibody complex in the test sample.

11. The method of claim 8, wherein the test sample is articular cartilage or chondrocytes and wherein the degenerative joint condition is indicated by an decrease in the amount of superficial zone protein.

12. The method of claim 4, wherein the detecting step comprises an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, a resonant mirror biosensor analysis, and a surface plasmon resonance analysis.

13. A method of screening for a substance that modulates levels of superficial zone protein, comprising:

(a) contacting a test sample with the substance to be screened, wherein the test sample contains superficial zone protein-producing cells;

(b) contacting, under conditions in which an antigen/antibody complex can form, the superficial zone protein in the test sample with a monoclonal antibody or a fragment thereof having specific binding affinity for superficial zone protein, wherein the binding affinity of the antibody or fragment thereof for human superficial zone protein is the same or greater than the binding affinity for bovine superficial zone protein in a competitive binding assay, resonant mirror biosensor analysis or surface plasmon resonance analysis;

(c) detecting the level of the antigen/antibody complex in the test sample; and

(d) comparing the level of the antigen/antibody complex in the test

sample with the level of antigen/antibody complex in a control sample,

a lower or higher level of the antigen/antibody complex in the test sample indicating a substance that modulates levels of superficial zone protein.

14. The method of claim 13, wherein the superficial zone protein-producing cells are selected from the group consisting of chondrocytes, synovial cells, pericardial cells, bone marrow cells, and other connective tissue cells.

15. The method of claim 13, wherein the superficial zone protein contacted in step (b) is secreted by the superficial zone protein-producing cells.

16. The method of claim 13, wherein the detecting step comprises an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, an resonant mirror biosensor analysis, and a Surface plasmon resonance analysis.

17. The method of claim 13, wherein the test sample is further contacted with an agent that increases levels of superficial zone protein and wherein the lower or higher level of the antigen/antibody complex indicates a substance that attenuates or potentiates the increase in superficial zone protein.

18. The method of claim 17, wherein the agent that increases levels of superficial zone protein is a cytokine or growth factor.

19. The method of claim 18, wherein the cytokine or growth factor is selected from the group consisting of TGFβ, IGF-1, BMP-1, BMP-4, and BMP-7.

20. A method of screening for a substance that reduces a degenerative

joint condition in a subject, comprising:

(a) contacting a first test sample from the subject with a monoclonal antibody or a fragment thereof having specific binding affinity for superficial zone protein, wherein the binding affinity of the antibody or fragment thereof for human superficial zone protein is the same or greater than the binding affinity for bovine superficial zone protein in a competitive binding assay, resonant mirror biosensor analysis or surface plasmon resonance analysis, under conditions in which an antigen/antibody complex can form;

(b) detecting the level of the antigen/antibody complex in the first test sample;

(c) treating the subject with the substance to be screened;

(d) contacting a second test sample from the subject with the antibody or fragment thereof, under conditions whereby an antigen/antibody complex can form;

(e) detecting the level of the antigen/antibody complex in the second test sample; and

(f) comparing the level of the antigen/antibody complex in the first test sample with the level of antigen/antibody complex in the second test sample,

a modulated level of the antigen/antibody complex in the second test sample indicating a substance that reduces the degenerative joint condition.

21. The method of claim 20, wherein the degenerative joint condition is an arthritic condition.

22. The method of claim 21, wherein the arthritic condition is osteoarthritis.

23. The method of claim 21, wherein the arthritic condition is rheumatoid arthritis.

24. The method of claim 20, wherein the test samples are selected from the group consisting of synovial fluid, tears, saliva, urine, serum, plasma, bone marrow, synovium, tendon, tendon sheath, ligament, meniscus, intervertebral disk, pericardium, chondrocytes, and articular cartilage.

25. The method of claim 20, wherein the detecting steps comprise an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, an resonant mirror biosensor analysis, and a Surface plasmon resonance analysis.

26. A method of screening for subjects who would benefit from treatment for a degenerative joint condition, comprising:

(a) obtaining a test sample from each subject;

(b) detecting superficial zone protein in the test samples; and

(c) comparing the amount of superficial zone protein in the test samples with an amount present in a control sample;

a modulated amount of superficial zone protein in the test sample indicating a subject that would benefit from treatment for the degenerative joint condition.

27. The method of claim 26, wherein the degenerative joint condition is an arthritic condition

28. The method of claim 27, wherein the arthritic condition is osteoarthritis.

29. The method of claim 27, wherein the arthritic condition is rheumatoid arthritis.

30. The method of claim 26, wherein the test sample and control sample are selected from the group consisting synovial fluid, tears, saliva, urine, serum, plasma, and bone marrow, synovium, tendon, tendon sheath, ligament, meniscus, intervertebral disk, pericardium, chondrocytes, and articular cartilage.

31. The method of claim 30, wherein the test sample is synovial fluid or synovium and wherein the subjects that would benefit from treatment are indicated by an elevated amount of superficial zone protein in the test samples.

32. The method of claim 30, wherein the test sample is articular cartilage or chondrocytes and wherein the subjects that would benefit from treatment are indicated by a decrease in the amount of superficial zone protein in the test samples.

33. The method of claim 26, wherein the superficial zone protein is detected by contacting the test sample with a monoclonal antibody or fragment thereof having specific binding affinity for superficial zone protein under conditions in which an antigen/antibody complex can form and detecting the level of antigen/antibody complex in the test sample, wherein the binding affinity of the antibody or fragment thereof for human superficial zone protein is the same or greater than the binding affinity for bovine superficial zone protein in a competitive binding assay, resonant mirror biosensor analysis, or Surface plasmon resonance analysis.

34. The method of claim 26, wherein the detecting step comprises an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, an resonant mirror biosensor analysis, and a Surface plasmon resonance analysis.

35. A method of monitoring a subject's response to a treatment for a degenerative joint condition, comprising:

(a) contacting a first test sample from the subject with a monoclonal antibody or fragment thereof having specific binding affinity for superficial zone protein under conditions in which an antigen/antibody complex can form, wherein the binding affinity of the antibody or fragment thereof for human superficial zone protein is the same or greater than the binding affinity for bovine superficial zone protein in a competitive binding assay, resonant mirror biosensor analysis, or Surface plasmon resonance analysis;

(b) detecting the level of the antigen/antibody complex in the first test sample;

(c) treating the subject;

(d) contacting a second test sample from the subject with the antibody or fragment thereof, under conditions whereby an antigen/antibody complex can form;

(e) detecting the level of the antigen/antibody complex in the second test sample; and

(f) comparing the level of the antigen/antibody complex in the first test sample with the level of antigen/antibody complex in the second test sample,

a modulated level of the antigen/antibody complex in the second test sample indicating the subject's response to the treatment.

36. The method of claim 35, wherein the degenerative joint condition is an arthritic condition.

37. The method of claim 36, wherein the arthritic condition is osteoarthritis.

38. The method of claim 36, wherein the arthritic condition is rheumatoid arthritis.

39. The method of claim 35, wherein the test samples are selected from the group consisting of synovial fluid, tears, saliva, urine, serum, plasma, bone marrow, synovium, tendon, tendon sheath, ligament, meniscus, intervertebral disk, pericardium, chondrocytes, and articular cartilage.

40. The method of claim 39, wherein the test sample is synovial fluid or synovium and wherein a reduction in the amount of superficial zone protein in the second test sample indicates a positive response to the treatment.

41. The method of claim 39, wherein the test sample is articular cartilage or chondrocytes and wherein an increase in the amount of superficial zone protein in the second test sample indicates a positive response to the treatment.

42. The method of claim 35, wherein the detecting steps comprise an assay selected from the group consisting of a competition or sandwich ELISA, a radioimmunoassay, a Western blot assay, an immunohistological assay, an

immunocytochemical assay, a dot blot assay, a fluorescence polarization assay, a scintillation proximity assay, a homogeneous time resolved fluorescence assay, an resonant mirror biosensor analysis, and a Surface plasmon resonance analysis.